

Claims

1. An aerofoil for a turbine engine, the aerofoil comprising cooling channels of decreasing cross-section with a transfer passage between adjacent cooling channels in order to provide coolant flow into a channel if normal coolant flow is restricted upstream of the transfer passage.
- 10 2. An aerofoil as claimed in claim 1 wherein the cooling channels are wedge shaped from an inlet to an outlet to provide the decreasing cross-section to coolant flow.
3. An aerofoil as claimed in claim 1 wherein transfer passages are provided on both sides of each cooling channel.
- 15 4. An aerofoil as claimed in claim 1, wherein the transfer passage has a cross-section determined for conformity with the outlet cross-section of a respective coolant channel for substantial coolant flow balance across the coolant channels of the aerofoil.
- 20 5. An aerofoil as claimed in claim 1, wherein more than one transfer passage is provided between adjacent coolant channels.
6. An aerofoil as claimed in claim 1, wherein each transfer passage has a diameter of approximately 1 millimetre.
- 25 7. An aerofoil as claimed in claim 1, wherein each transfer passage has one of a round, lozenge and oval cross-section.
- 30 8. An aerofoil as claimed in claim 1, wherein each transfer passage is substantially perpendicular to the respective coolant channels between which it extends.
9. An aerofoil as claimed in claim 1, wherein the transfer passages are staggered relative to the major axis 35 of the aerofoil in order to improve at least one of the heat transfer and mechanical strength of the aerofoil.

10. An aerofoil as claimed in claim 1, wherein each transfer passage is located towards an upstream end of its coolant channel.
11. A turbine engine including an aerofil as claimed in
5 claim 1.